

GERSHKOVICH, N.L.

Materials on the species of fleas parasite on rodents in Kamchatka.
Izv. Irk. gos. nauch.-issl. protivochum. inst. 21:327-330 '60.
(MIRA 14:1)

(KAMCHATKA--PARASITES--RODENTIA)

(FLEAS)

GERSHKOVICH, N.L.

Method for estimating the number of fleas in gerbil (*Rhabdomys*
optimus) burrows. Med.paraz.i paraz.bol. 29 no.5:578-584 S-0
'60. (MIRA 13:12)

1. Iz TSentral'noy protivochumnoy nablyutatelnoy stantsii.
(FLEAS)

SIL'VERSTOV, V.B.; GERSHKOVICH, N.L.

New technique of catching live subterranean voles for a complete collection of their ectoparasites. Zool.shur. 41 no.11: 1751-1753 N '62. (MIRA 16:1)

1. Central Anti-Plague Observation Station, Moscow.
(Makatskiy District—Parasites—Field mice)

GERSHKOVICH, N.L.; YEVSEYEVA, V.Ye.; BABENKO, L.V.

Ectoparasites; fauna; biology and its practical importance;
annotation. Med. paraz. i paraz. bol. 33 no.6:752 N-D '64.
(MIRA 18:6)

GERSHKOVICH, P.N.; IL'INA, N.M.

Effectiveness of treating functional incontinence of urine in women
by exercise in hypnoid states. Vop. kur., fizioter. i lech. fiz. kul't.
22 no.1:50-52 Ja-F '57 (MLRA 10:4)

1. Iz TSentral'noy psikho-nevrologicheskoy bol'nitsy Ministerstva
putey soobshcheniya, Khar'kov (nachal'nik V.M. Yushtin)
(HYPNOTISM--THERAPEUTIC USE) (URINE--INCONTINENCE)

GERSHKOVICH, P.N., TREGUBOVICH, A.D.

Prophylaxis and treatment of contractures of the shoulder joint
in an algetic syndrome by means of gymnastics. Vop.kur., fi-
zioter. i lech. fiz. kul't. 28 no.2:164-166 Mr-Apr'63.
(MIRA 16:9)

1. Iz TSentral'noy klinicheskoy psikhoneurologicheskoy i ney-
rokhirurgicheskoy bol'nitsy Ministerstva putey soobshcheniya
(nachal'nik V.M.Yushtin) v. Khar'kove.
(SHOULDER JOINT—DISEASES) (EXERCISE THERAPY)
(CONTRACTURE)

ACCESSION NR: AP4040669

8/0075/64/019/006/0705/0703

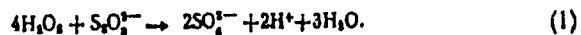
AUTHOR: Yatsimirskiy, K. B.; Morozova, R. P.; Voronova, T. A.; Gershkovich, R. M.

TITLE: Quantitative determination of tantalum by its catalytic action on the oxidation of thiosulfate by hydrogen peroxide.

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 6, 1964, 705-708

TOPIC TAGS: tantalum, quantitative determination, thiosulfate oxidation, catalysed thiosulfate oxidation, kinetic analysis, phototurbidimetric determination, catalysed oxidation

ABSTRACT: A new kinetic method is suggested for the quantitative determination of Ta (V), based on the catalysis of the reaction between thiosulfate and hydrogen peroxide:



Since the rate of sulfate formation is proportional to the catalyst concentration, and since the optical density of BaSO_4 is directly proportional to the sulfate ion

Card 1/3

ACCESSION NR: AP4040669

concentration, phototurbidimetric determination in the changes of the optical density of BaSO_4 will indicate the rate of the indicated reaction. A linear relationship was found between catalyst concentration (i.e., sulfate formation) and length of the induction period (time from mixing of the reagents to moment optical density = 0.05). The relationships between induction period and peroxide and thio-sulfate concentrations were also established (figs. 1, 2). It is suggested that concentrations of these corresponding to the middle portions of these curves be used. W, Ti, V and Th ions, which themselves catalyse the above reaction, and fluoride ions which form strong complexes with the catalyst affect the determination. Orig. art. has: 2 tables, 3 figures and 2 equations.

ASSOCIATION: Ivanovskiy khimico-tehnologicheskiy institut (Ivanov Chemical Technological Institute)

SUBMITTED: 08Jul63

ENCL: 01

SUB CODE: IC

NO REF Sov: 005

OTER: 000

Card

2/3

GERSHKOVICH, R.S.; MARTYNYUK, Yu.V., kand. med. nauk; POLYAKOVA, V.M.

Use of human citrated plasma in chronic tonsillitis. Vestn.
otorinolaring. 25 no.3:107 '63 (MIRA 17:1)

1. Iz L'vovskogo meditsinskogo instituta (rukoveditel' raboty
zasluzhennyy deyatel' nauki prof. S.V. Mikhaylovskiy).

GERSHKOVICH, S.P.

Laying cables in the area of industrial plants. Prom.energ.ll
no.4:35 Ap '56. (MIRA 9:7)

1.Glavnyy energetik Kemerovskogo khimkombinata.
(Electric cables)

GIRSHKOVICH, S.F., inzhener (g.Kemerovo)

Starting and adjusting electric equipment at the time of
installation. Prom. energ.11 no.5:34 My '56.(MLRA 9:9)
(Electric engineering)

GERSHKOVICH, S.Y., inshener (g. Kemerovo).

Checking the air gap in electric motors. Prom. energ. 11 no.10:37
O '56. (MLRA 9:11)
(Electric motors)

MUSATOV, T.P. inzh.; SHCHUKIN, B.D.; FIKSMAN, S.I. (Ciessa)
GERSHKOVICH, S.F.; SHNELL', R.V.; DODIN, Ya.I.; ZEYLIDSON,
Ye.D.

Problem of automation and remote control in industrial sub-
stations. Prom.energ. 12 no.8:1-7 Ag '57. (MIRA 10:10)

1. Stalinskiy setevoy rayon Donbassenergo (for Musatov).
2. Gidroproyekt, g. Kuybyshev (for Shchukin).
3. Novo-Kemerovskiy khimkombinat (for Gershkovich).
4. Novosibirskoye otdeleniye Gosudarstvennogo proyektnogo instituta Elektroproyekt (for Shnell').
5. Leninogorskiy polimetallichесkiy kombinat (for Dodin).
6. Tekhnicheskoye upravleniye Ministerstva elektrostantsiy (for Zeylidzon).

(Electric power) (Automatic control)

"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514920005-5

GERSHKOVICH, S.F.: KOZLOV, V.I. (Kemerovo)

Some defects in water-supply and sewage designs. Vod. i san. tekhn.
no.6:14-15 ye '59. (MIRA 12:8)
(Water-supply engineering) (Sewerage)

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514920005-5"

PETROV, I.I., doktor tekhn.nauk, prof.; SYROMYATNIKOV, I.A., doktor tekhn. nauk, prof.; LITVINOV, V.N.; FOM, A.A.; GERSHKOVICH, S.F.; POPOV, S.N.; BOCHAROV, V.I.

In regard to the letter written by V.V.Artomonov, A.A.Fedorov, and M.I.Kiselev on "Improvement in the training of specialists in the field of electrification of industrial enterprises." Prom. energ. 15 no.9:55-59 S '60. (MIRA 13:10)

1. Nachal'nik elektrotsekhma, g.Krasnoyarsk (for Litvinov). 2. Glavnny energetik Kazgiprotsvetmet (for Fom). 3. Glavnny energetik Novo-Kemerovskogo khimkombinata (for Gershkovich). 4. Sverdlovskiy sov-narkhoz (for Popov). 5. Frunzenskiy politekhnicheskiy institut (for Bocharov).

(Electricians--Education and training)

(Electrification)

(Artamonov, V.V.) (Fedorov, A.A.) (Kiselev, M.I.)

EXCERPTA MEDICA Sec.6 Vol.10/9 Internal Medicine Sept56

5351. GERSHKOVITCH S. M. and KIRBEDOYAN Tu. R. Chirurg. Hosp. for Infect. Dis., Murmansk. "On the clinical and epidemiological

features of scarlet fever in adults (Russian text) KLIN. MED. (Mosk.) 1955, 33/10 (84)

Observations based on a 5-year period in arctic regions have shown that 2.9% of scarlet fever patients were adults. Over 2/3 of the adults have had scarlet fever during their first month in the arctic and about one half of the adults had the disease during the first 6 months of their life in the arctic region. The change of reactivity influenced by meteorological conditions of the arctic may be responsible for the phenomena. The clinical course of the disease was more severe in the adults than in children.

Anigstein - Galveston, Tex. (JX. 6, 1, 17)

GERSHKOVICH, S.M.

Epidemiological analysis of an outbreak of dysentery caused by
water supply disorders. Zhur.mikrobiol.epid. i immun. 27 no.4:89-93
Ap '56.
(MLRA 9:?)

1. Iz Murmanskoj detskoj infektsionnoj bol'ničej
(DYSENTERY, epidemiol.
in Russia, caused by water supply disord.)
(WATER SUPPLY
disord., causing dysentery outbreak in Russia,
epidemiol. analysis)

GERSHKOVICH, S.M.

Result of a detailed analysis of work of a children's consultation polyclinic. Sov. zdrav. 17 no.6:21-27 Je '58 (MIRA 11:6)

1. Iz Murmanskoy detskoy ob'yedinennoy bol'nitsy (glavnnyy vrach M.P. Nemzer).

(HOSPITALS,
pediatric consultation polyclinic (Rus))
(PEDIATRICS,
consultation polyclinic (Rus))

GERSHKOVICH, S.M.; SOROKINA, L.S.; NEMZER, M.P.

Reorganization of the system of infirmary care for children with
gastrointestinal diseases. Vop. okh. mat. i det. 5 no. 2:69-74
Mr-Ap '60. (MIRA 13:10)

1. Iz Murmanskoy detskoy infektsionnoy bol'nitsy (glavnnyy vrach
M.P. Nemzer).

(DIGESTIVE ORGANS--DISEASES)
(INFANTS--CARE AND HYGIENE)

GERSHKOVICH, S.M.

Classification of gastrointestinal diseases in children. Vop. okh.
mat. i det. 5 no.6:79-82 N-D '60. (MIRA 13:12)

1. Iz Murmanskoy ob'yedinennoy detskoy infektsionnoy bol'nitsy (glavnyy
vrach M.P. Nemzer).
(DIGESTIVE ORGANS—DISEASES)

"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514920005-5

GERSHKOVICH, S.M.

Rickets and its significance in child pathology on the Kola Peninsula.
Pediatrilia 38 no. 3:41-45 Mr '60. (MIRA 14:1)
(KOLA PENINSULA—RICKETS)

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514920005-5"

GERSHKOVICH, S.M.

Rickets in children in Far North. Vop. okh. mat. i det. 6 no.7:22-
88 Jl '61. (MIRA 14:8)

1. Iz Murmanskoy detskoy ob"yedinennoy bol'nitsy (glavnnyy vrach
M.P.Nemzer).
(RUSSIA, NORTHERN--RICKETS)

GERSHKOVICH, S.M.; BELOZORSKIY, V.Ya.; MOSKALEVA, R.A.

Some clinical roentgenological observations on ricket in
children in the polar region. Pedatriia 39 no.3:71-73 Mr '61.
(MIRA 14:4)

1. Iz Murmanskoy detskoy ob"yedinennoy bol'nitsy (glavnnyy vrach
M.P. Nemzer).
(RUSSIA, NORTHERN--RICKETS)

GERSHKOVICH, S.M.; NEMZER, M.P.

Characteristics of the leucocytes in children of the Murmansk
Arctic Region. Pediatriia no.7:36-40 '62. (MIRA 15:12)

1. Iz Ob'yedinennoy detskoj infektsionnoy bol'ničay Murmanskay
(glavnnyy vrach M.P. Nemzer).
(LEUCOCYTES) (MURMANSK REGION—ARCTIC MEDICINE)

GERSHKOVICH, S.M.; TARASOV, L.A.; ZAKREVSKAYA, V.Ya.; GORSHENINA, Yu.N.;
STANISLAVOVA, M.A.

Physical development of children during the first year of life
in Murmansk. Vop. okh. mat. i det. 7 no.1:77-80 Ja '62. (MIRA 15:3)

1. Iz Murmanskoy detskoy ob'yedinennoy bol'nitsy (glavnnyy
vrach M.P. Nemzer).
(MURMANSK--INFANTS--GROWTH)

BELOGORSKIY, V. Ya.; GERSHKOVICH, S.M.

X-ray studies of changes due to rickets within the osseous system of breast-fed children in the Far North. Pediatriia 41 no.11:
46-52 №62
(MIRA 1784)

1. Iz obyedinennoy detskoj bol'niцы (glavnyy vrach M.P.Nemzer)
Murmanska.

"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514920005-5

GERSHKOVICH, V.F., inzh. (Kiyev)

Nomogram for selecting diaphragms with a central opening along
the axis of an air duct. Vod. i san. tekhn. no.7:7-8 Jl '62.
(MIRA 15:9)
(Airpipes)

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514920005-5"

15(2)
AUTHOR:

Gershkovich, V. I.

SOV/131-59-2-9/16

TITLE: Reconstruction of a Feeding Cart of the SM-143
(Rekonstruktsiya zasypnoy karetki pressa SM-143)

PERIODICAL: Ogneupory, 1959, Nr 2, pp 84-85 (USSR)

ABSTRACT: In pressing wedge-shaped products with the SM-143 presses unequally pressed products are obtained. In order to eliminate this defect the feeding cart was provided with wooden fillers in the front part (Fig 1). Two mechanics of the works suggested a reconstruction according to figure 2 which makes it possible to control by an easy method the feeding of the mass into the molds. Thus, the quality of wedge-shaped products was improved. There are 2 figures.

ASSOCIATION: Borovichskiy kombinat ogneuporov
(Borovichchi Kombinat of Refractories)

Card 1/1

14(1), 14(5), 14(8)
AUTHOR: Gershkovich, V. I.

SOV/131-59-4-12/16

TITLE: Automatic Ventilation Doors in Mines (Shakhtnyye
avtomaticheskiye ventilyatsionnyye dveri)

PERIODICAL: Ogneupory, 1959, Nr 4, pp 188-189 (USSR)

ABSTRACT: These ventilation doors were introduced in the mines of the Borovichi Kombinat at the suggestion of N. P. Kotov, V. A. Gorbachev, P. F. Vasil'yev. These doors have two wings, and one wing has a door for the passage of men. The door is opened by means of a pneumatic cylinder (Fig 1). The change of the air supply to the pneumatic cylinder is carried out by a slide box which is operated by an electromagnet (Fig 2). The operation of these doors is described in detail as well as the automatic control of them for men and electric engines. On the interruption of current all doors are open. These automatic ventilation doors have a simple construction and need hardly ever to be repaired. There are 2 figures.

ASSOCIATION: Borovichskiy kombinat ogneuporov (Borovichi Kombinat of Refractories)

Card 1/1

BLAUM, A.M.; GERGKOVICH, I.I.; GOLUBTSOV, L.B.; ITIN, L.I.;
KAMENITSEK, S.Ye.; KONTOLovich, V.G.; KOROZEV, P.A.;
TOLSTYKH, A.S.; SHNANSKIY, V.P.; CHUVILOV, N.M.;
AVETIRIAN, Ye., red.

[School of socialist management; a school reader for workers
studying the economics of industrial enterprises] Shkola
sotsialisticheskogo khoziaistvovaniia; kniga dlja chteniia v
shkolakh rabochikh, izuchaiushchikh ekonomiku promyshlennyykh
predpriatii. Izd.2., perer.i dop. Moskva, Politizdat,
1964. 318 p. (MLA 17:8)

MINISTRY OF MEDICAL SCIENCES
BUREAU OF MEDICAL RESEARCH
PHYSICAL MEDICINE AND REHABILITATION

Changes in the immunological properties of blood during the
rheumatic disease in children. Ver. Sov. Akad. Nauk SSSR
1970 Ser. Med. Nauki No. 10

1. Institute of Experimental Pathology and Therapeutics
Institut für Experimentelle Pathologie und Therapie der DDR

GERSHKOVICH, V. I.

Nurses and Nursing

High vocation. Med. sestra No. 3, 1953.

SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

GERSHKOVICH, V.I., vrach oblastnogo protivotuberkul'snogo dispensera
(Poltava)

Experience of rural medical stations in the control of tuberculosis.
Mod. sestra no.7:24-27 Jl '54. (MIRA 7:7)
(TUBERCULOSIS, prevention and control
*Russia, rural med. centers)

GERSHKOVICH, V.I. (Poltava)

They were trained by the staff. Med.sestra no.5:25-27 My '55.
(NURSES AND NURSING) (MIRA 9:6)

"APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514920005-5

GERSHKOVICH, V.I. (Poltava)

Fine work practice in the prevention of agricultural accidents.
Fel'd. i akush. 21 no.11:37-39 II '56. (MLRA 9:12)
(AGRICULTURE--SAFETY MEASURES)

APPROVED FOR RELEASE: 09/24/2001

CIA-RDP86-00513R000514920005-5"

GERSHKOVICH, V.I., vrach

Role of the nurse in caring for patients with tuberculosis of the
bones and joints. Med.sestra 15 no.11:10-11 N '56. (MLRA 9:12)

1. Oblastnoy tuberkuleznyy dispanser, Poltava.
(JOINTS--TUBERCULOSIS) (BONES--TUBERCULOSIS)
(NURSES AND NURSING)

GERSHKOVICH, V. I.
GERSHKOVICH, V.I., vrach

Participation of the nurse in the treatment of patients with
artificial pneumothorax. Med.sestra 16 no.11:27-30 N '57.
(MIRA 11:2)

1. Poltavskiy oblastnoy protivotuberkuleznyy dispanser
(PNEUMOTHORAX) (NURSES AND NURSING)

GERSHKOVICH, V.I. (Poltava)

Reliable physician's assistant. Med. sostra 17 no.2:37-38 p 158.
(MIRA 11:3)

(RELOBROVA, OL'GA MOISAEVNA)

GERSHKOVICH, V.I. (Poltava)

Role of the midwife of a municipal hospital in prophylactic
examinations. Fel'd i akush, 23 no.5:38-40 My'58 (MIRA 11:6)
(GENERATIVE ORGANS, FEMALE--TUMORS)

GERSHKOVICH, V.I. (Poltava)

Organization of medical consultations at feldscher centers. Fel'd.
i akush. 25 no.9:41-42 S '60. (MIRA 13:9)
(MEDICAL CARE)

GERSHKOVICH, V.I.

Polyclinic operates on Sunday. Vrach. delo no. 1:107-108 '61.
(MIRA 14:4)

1. Vtoraya Poltavskaya gorodskaya bol'ničsa.
(POLTAVA---HOSPITALS)

ZAKHARENKO, N.L. (Poltava); GEMSHKOVICH, V.I. (Poltava)

From the experience of work at the Pokrovo-Bagachanskii
District Hospital in Poltava Province. Vrach. delo no. 10:
122-123 O '63. (MIRA 17:2)

ABDULKHANOV, A.A.; MIFTAKHUTDINOVA, T.S.; KIVVA, K.Ya.; GERSHKOVICH, V.I.,
vrach

Councils of medical nurses. Med.sestra 22 no.2:51-55 F '63.
(MIRA 16:5)

1. Predsedatel' soveta meditsinskikh sester, starshaya meditsinskaya
sestra Detskoy bol'nitsy No.3, Barnaul, Altayskiy kray (for Kolo-
mutitsa). 2. Predsedatel' soveta meditsinskikh sester Moskovskoy
gorodskoy klinicheskoy bol'nitsy No.64 (for Vasil'yev) 3. Predsedatel'
soveta meditsinskikh sester Poltavskoy oblastnoy bol'nitsy (for
Kivva).

(NURSES AND NURSING)

SOLNTSEV, P.I.; GERSHKOVICH, V.I.

Durability of press mold plates during the press molding of
grog products. Ogneupory 27 no.3:120-126 '62. (MIRA 15:3)

1. Leningradskiy korablestroitel'nyy institut (for Solntsev).
2. Borovichskiy kombinat ogneuporov (for Gershkovich).
(Plates, Iron and steel--Testing) (Refractory materials)

68-58-4-3/21

AUTHORS: Gershkovich, V. L., Makovskiy, Yu. A. and Pavlikovich, V.A.

TITLE: Flotation of Coals in Salt Solutions (Flotatsiya ugley
v solyanykh rastvorakh)

PERIODICAL: Koks i Khimiya, 1958, Nr 4, pp 7-10 (USSR)

ABSTRACT: This is a contribution to a previously published paper by M. G. Yel'yashevich (Koks i Khimiya, 1956, Nr 7). The present authors consider that the results of laboratory flotations of coals in solutions of inorganic salts as well as the whole paper are insufficiently convincing and that the proposed conditions for an industrial flotation were never checked and cannot be considered as optimal. Some results of an experimental laboratory and industrial work carried out by Lengiproshakht are given in Tables 1 and 2. It is shown that on flotation in salt solutions the ash content of concentrates and the duration of the flotation decreased. It is stated that Lengiproshakht is planning further work in this field on various coal washeries of the country when flotation shops will be transferred for long

Card 1/2

Flotation of Coals in Salt Solutions
periods to salt flotation. This will permit the final
settlement of the economic advantages of the process.
There are 2 tables.

68-58-4-3/21

ASSOCIATION: Leniproshakht

1. Coal--Flotation 2. Salt solutions--Performance

BORTS, M.A.; STEPANOVA, D.I.; GERSHKOVICH, V.L.; MAKARUSHINA, M.I.;
FILIPISHIN, I.T.

Use of polyacrylamide in the filtration of slurry under pressure.
Koks i khim. no.12;3-6 '63.

(MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut po obogashcheniyu i briketirovaniyu ugley (for Borts, Stepanova).
2. Zhilevskaya OPOF Vsesoyuznogo nauchno-issledovatel'skogo i proyektno-konstruktorskogo instituta po obogashcheniyu i briketirovaniyu ugley (for Gershkovich, Makarushina).
3. Bogurayevskaya optytnaya fabrika tsentrobezhnogo obogashcheniya uglya (for Filipishin).

BERSHKOVICH, V.M.

Deamination of amino acids in the liver and kidneys of rats
under the action of X rays. Trudy Tsentr, nauch.-issl. inst.
rentg. i rad. 10:373-379 '59. (MRRA 12:9)
(DEAMINATION) (X RAYS--PHYSIOLOGICAL EFFECT)

30(7)

S/115/60/000/04/033/041
D002/DC06

AUTHOR: Gershkovich, Ye.A.

TITLE: A Conference on the Problems of Improving Measurement Techniques and Production Quality

PERIODICAL: Izmeritel'naya tekhnika, 1960, Nr 4, p 59 (USSR)

ABSTRACT: In December 1959, a conference of delegates from Leningradskiy sovnarkhoz (Leningrad Sovnarkhoz) enterprises was convened and organized by the Tekhniko-ekonomicheskiy sovet (Technical-Economic Council) of the sovnarkhoz, the VNIIM imeni D.I. Mendeleyeva (VNIIM imeni D.I. Mendeleyev), scientific-technical societies of machine and instrument building, and by the Leningradskiy dom nauchno-tehnicheskoy propaganda (Leningrad House of Scientific-Technical Publicity). Professor V.O. Arutyunov of VNIIM presen-

Card 1/4

S/115/60/000/04/033/041
D002/D006

A Conference on the Problems of Improving Measurement Techniques
and Production Quality

ted a report on the technical level of measurement means and methods used at machine-building, textile, paper, chemical and food plants, and on the organization of supervision. The Conference decided to draw the attention of Gosplan SSSR (Gosplan of the USSR) and the Gosudarstvennyy komitet po avtomatizatsii i mashinostroyeniyu (State Committee of Automation and Machine Building) to a number of shortcomings. Among its decisions the conference recommended that the central office of the Leningrad Sovnarkhoz organize a special inspection department for production quality; that the staffs of plant measurement laboratories be supplemented; that the Tekhnicheskoye upravleniye (Technical Administration) of the Sovnarkhoz jointly with VNIIM and

Card 2/4

S/115/60/000/04/033/041
D002/D006

A Conference on the Problems of Improving Measurement Techniques
and Production Quality

other research and design organizations work out ways of providing modern measuring and inspection equipment for industry; that a central repair plant be organized in Leningrad for a wide range of instruments; that the supply of spare parts for measuring devices and of drawing paper be improved. The attention of Komitet standartov, mer i iz-
meritel'nykh priborov (Committee of Standards, Measures and Measuring Devices) was drawn to the necessity of speeding up the development and approval of standards for statistical inspection methods and quality control, and to expand and improve the inspection laboratories of VNIIM. It was suggested

Card 3/4

S/115/60/000/04/033/041
D002/DC06

A Conference on the Problems of Improving Measurement Techniques
and Production Quality

to revise the "Regulation on Otdely tekhnicheskogo
kontrolya" (Technical Inspection Departments). ↴

Card 4/4

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CIA-RDP86-00513R000514920005-5

ERDOLIKHIN, Ye.S.; GERZIKOVICH, Ye.A.

International symposium on moisture measurement. Izv. Akad. Nauk SSSR, No. 8:60-61
(MIRA 17:12)

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GERSHKOVICH, Ye.A., inzh.; KRIVOVSKIY, Ye.S., kand.tehn.nauk

Foreign air-humidity transducers. Priborostroenie no.11:27-28
N 165.
(M.A 18:11)

HERSIMOVICH, Ye.A.

Laboratory type DI-8 balance hygrometer. Zav. lab. 31 no. 12:
1541-1542 '65
(MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii
imeni Mendeleyeva.

GERSHKOVICH, Ye. E.

Chronometric method of determination of carbon disulfide in
organic solvents. Zav. lab. 28 no.12:1437-1438 '62.
(MIRA 16:1)

1. Leningradskiy nauchno-issledovatel'skiy institut gigiyeny
truda i profzabolevaniy.

(Carbon disulfide)

BRENNAN, A.; GERSHKOVICH, Zh.; GERTSOV, A.M.; VAYNBREG, M.

Formation of the catalyst under conditions of the hydroformylation reaction. Zhur. prikl. khim. 34 no.2:454-455 F '61. (MIRA 14:2)

1. Khimicheskiy issledovatel'skiy institut, Bucharest.
(Oxo process) (Cobalt carbonyl)

S/079/62/032/012/004/003
D424/D307

AUTHORS: Gershkovich, Zh., Duvalma, M., Meruyu, Ye., Smorzh-
evskaya, N., Vaynsberg, N. and Korletyanu, Ye.

TITLE: Production of isoprene from dimethyldioxan. I. The
role of catalyst and support

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 12, 1962,
3937-3990

TEXT: In connection with work carried out at the authors' Institute in Bucharest on the production of isoprene from isobutylene and formaldehyde via 4,4-dimethyl-1,3-dioxan (DM), the effect of the composition of the catalyst for the vapor-phase conversion of DM to isoprene on its selectivity, isomerizing effect, etc. has been studied. Standard conditions found to be optimal in preliminary experiments were used, namely: 270°C and a space velocity of feed of DM of 0.4 hr⁻¹. The highest activity was possessed by a catalyst consisting of acid calcium phosphate on a silica/5% alumina support, the nature of the support being important. With this cata-

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Production of isoprene ...

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D424/B307

lyst, the selectivity fell as the temperature was increased from 150 to 350°C but the maximum total conversion (~ 65%) was obtained at ~ 300°C, the selectivity then being of the order of 85%. By-products found (by gas chromatography) included isobutylene, 2-methylbut-2-ene, methyldihydroxyran, 2-methylbutan-1-ol, isovaleraldehyde, and dimers and trimers of isoprene. The fact that the support alone had a small catalytic activity due to its lewis acid sites and leading mainly to isobutylene is considered to show that the activity of the calcium phosphate catalyst depends on the presence of Brönsted acid sites. The catalyst is not appreciably affected by the usual impurities in DMD but is poisoned by sulfur (mercaptans). It can also be used for the production of other dienes, e.g. 2-phenylbutadiene, by analogous reactions. There are 5 figures.

ASSOCIATION: Khimicheskiy issledovatel'skiy institut, Bucharest
(Chemical Research Institute, Bucharest)

SUBMITTED: February 24, 1961

Card 2/2

S/079/62/032/012/005/008
D424/D307

AUTHORS: Gershkovich, Zh., Duvalma, M., Stoyka, A. and Vytka, V.

TITLE: Production of isoprene from dimethyldioxan. II.
Hydrolysis of 4-alkyl-1, 3-dioxans

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 12, 1962,
3990-3992

TEXT: In connection with work on the production of isoprene from 4,4-dimethyl-1,3-dioxan, the acid hydrolysis of a number of 4-alkyl-1,3-dioxans has been studied. The ratio $\log K_1/[H_2SO_4]$, where K_1 is the first order velocity constant for the hydrolysis, is an approximately linear function of the concentration. Under the same conditions, the relative velocity constants for the hydrolysis of 1,3-dioxan and some of its 4-alkyl derivatives are as follows:

4-H, 1.0; 4-Me, 1.1; 4-Et, 1.5; 4,5-Me₂, 3.4; and 4,4-Me₂, 5.8.

In the case of the 4,4-Me₂ compound, the main reaction product is a tertiary alcohol. The reaction is assumed to proceed mainly by the

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Production of isoprene ...:

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rupture of the O(3) — C(4) bond to form a carbonium cation, and this mechanism is considered to be confirmed to some extent by the methanolysis of 4,4-dimethyl-1,3-dioxan to give 5-methyl-5-methoxybutan-1-ol under conditions in which the corresponding diol is not etherified and by its reaction with acetyl chloride in the presence of Friedel-Crafts catalysts to give γ -chloroiso-amyl acetate. There are 1 figure and 1 table.

ASSOCIATION: Khimicheskiy issledovatel'skiy institut, Bucharest
(Chemical Research Institute, Bucharest)

SUBMITTED: May 22, 1961

Card 2/2

3/079/62/052/012/006/003
D424/5307

AUTHORS: Gershkovich, Eh., Juvalma, II., Keruyu, Ye., Sfitesku, ..., Korletyanu, Ye., Vaynsberg, I. and Liorzhevskaya, I..

TITLE: Production of isoprene from dimethyldioxan. III.
Acidity and activity of the cracking catalyst

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 12, 1962,
5992-5997

TEXT: The present article deals with the production of isoprene by the vapor-phase catalytic cracking of dimethyldioxan and shows that the activity of the catalyst depends on the presence of Brønsted acid sites, the reaction being analogous to that carried out in solution with acid catalysts. The catalysts used in the present work were prepared by calcining silica + 5% of alumina at 500°C, impregnating this support with solutions of phosphates (sodium, ammonium, calcium, etc.) of various concentrations, and calcining at 400°C. The proton acidity of the catalysts was measured by ion-ex-

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Production of isoprene ...

3/079/62/032/012/006/008
3424/D307

change with neutral ammonium acetate solution, and their surface area by a simplified BET method. Plotting the increase in activity (total conversion under standard conditions) of the catalyst against increase in proton acidity gives a characteristic curve consisting of two rectilinear sections, the slope suddenly becoming more pronounced at a content of active phase in the catalyst of about 4%, corresponding to an acidity of 0.050 m-equiv/g. The selectivity also rises very rapidly and linearly, up to a proton acidity of about 0.10 m-equiv/g, after which it continues to rise very slowly, the conversion of dimethyldioxane to isoprene, however, remaining constant (because of a slight decrease in the total conversion) at about 47% under standard conditions (after 3 hrs with a space velocity of 0.4 hr⁻¹, at 300°C). The relationship between the first-order velocity constant and the acidity of the catalyst is similar to that for homogeneous acid catalysis. The specific surface of the catalyst falls as the content of active phase is increased from 0 to 34%, except that at 2% it is greater than at 5%. During working, as the catalyst becomes coated with 'coke' its acidity diminishes and the conversion falls, the selectivity increasing slightly.

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Production of isoprene ...

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D424/4507

The nature of the curve of the increase in acidity with the amount of active phase is explained by the formation of aggregation polymers by the phosphate on the surface of the support. The dependence of the activity on the proton acidity is explained by the formation of active surface compounds by the dimethyldioxan at the Brönsted acid sites. The levelling off of the conversion to isoprene at a certain acidity is due to the decreased specific surface and consequent decreased adsorption. The main side reaction - the production of isobutylene - takes place at both Brönsted and Lewis acid sites and is therefore independent of the presence of the active phase. Because the Brönsted acid sites are screened to some extent from 'coking up' by their adsorption of the dimethyldioxan, the Lewis acid sites are lost more rapidly during the working of the catalyst, which accounts for the increase in selectivity during working. There are 6 figures and 2 tables.

ASSOCIATION: Khimicheskiye issledovatel'skiy institut, Bucharest
(Chemical Research Institute, Bucharest)

SUBMITTED: May 22, 1961

Card 3/3

GERSHKOVICH, Zh.[Herscovici, G.]; DUVALMA, M.; MEROYU, Ye.[Merdu, E.];
SMORZHEVSKAYA, M.; VAYNBERG, M.; KORLETYANU, Ye.[Corleteanu, E.]

Preparation of isoprene from dimethyldioxane. Part 1: Role of
a catalyst and of a carrier. Zhur. ob. khim. 32 no.12:3987-3990
D '62. (MIRA 16:1)

1. Khimicheskiy issledovatel'skiy institut, Bukharest.

(Isoprene) (Dioxane) (Catalysts)

GERSHKOVICH, Zh. [Hercovici, G.]; DUVALMA, M.; STOYKA, R. [Stoica, R.];
VYTKA, V. [Vitca, V.]

Preparation of isoprene from dimethyldioxane. Part 2: Hydrolysis
of 4-alkyl-1,3-dioxanes. Zhur. ob. khim. 32 no. 12:3990-3992
D '62. (MIRA 16:1)

1. Khimicheskiy issledovatel'skiy institut, Bukharest.

(Isoprene) (Dioxane) (Hydrolysis)

GERSHKOVICH, Zh.[Herscovici, G.]; DUVALMA, M.; MEROYU, Ye.[Meroiu, E.];
SFINTSESKU, K.[Sfintescu, C.]; KORLETYANU, Ye.[Corleteanu, E.];
VAYNBERG, M.; SMORZHEVSKAYA, M.

Preparation of isoprene from dimethyldioxane. Part 3: Acidity
and activity of a cracking catalyst. Zhur. ob. khim. 32 no.12:
3992-3997 D '62. (MIRA 16:1)

1. Khimicheskiy issledovatel'skiy institut, Bukharest.

(Isoprene) (Dioxane) (Catalysts)

L 25662-56	EWT(m)/EWP(v)/EWP(j)/T	IJP(c)	WW/DJ/RM	UR/
ACC NR: AM5026666	Monograph			
Vatazhina, V. I. (Candidate of Technical Sciences); Mants, V. O. (Candidate of Architecture); Pankratov, S. I. (Engineer); Gershikov, I. M. (Engineer); Sadagashvili, G. R. (Engineer)				
Hermetic sealing materials for structural elements (Gernstiziruyushchiye materialy dlya stroitel'nykh konstruktsiy) Moscow, Stroyizdat, 65. 0'46 p. illus., biblio. (At head of title: Gosudarstvennyy komitet po promyshlennosti stroitel'nykh materialov pri Gosstroye SSSR. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov) Errata slip inserted. 3,000 copies printed.				
TOPIC TAGS: general construction, construction material, civil engineering, hermetic seal, synthetic material. structural plastic				
PURPOSE AND COVERAGE: This book gives a survey of the development in the Soviet Union and abroad of the problem of hermetically sealed seams of external aggregate elements. All types of sealing materials used in construction are viewed. Engineering of the production of principle hermetic sealing materials used in large panel construction is also covered. The book presents means of applying the materials and technical characteristics of the apparatus and equipment necessary for mechanized application of hermetic of the seams of buildings and structures. Special attention is given to methods of testing hermetic seals and means of determining their water and air penetrability which permit inspection of materials in simulated working conditions. The book also gives data of comparative economic				
UDC: 691.17:624.078				
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ACC NR: 4M5028686

effectiveness in using hermetic sealing in large panel construction. This book is recommended for engineers and technicians in the industry of synthetic building materials, for workers of project organizations and building manufacturers.

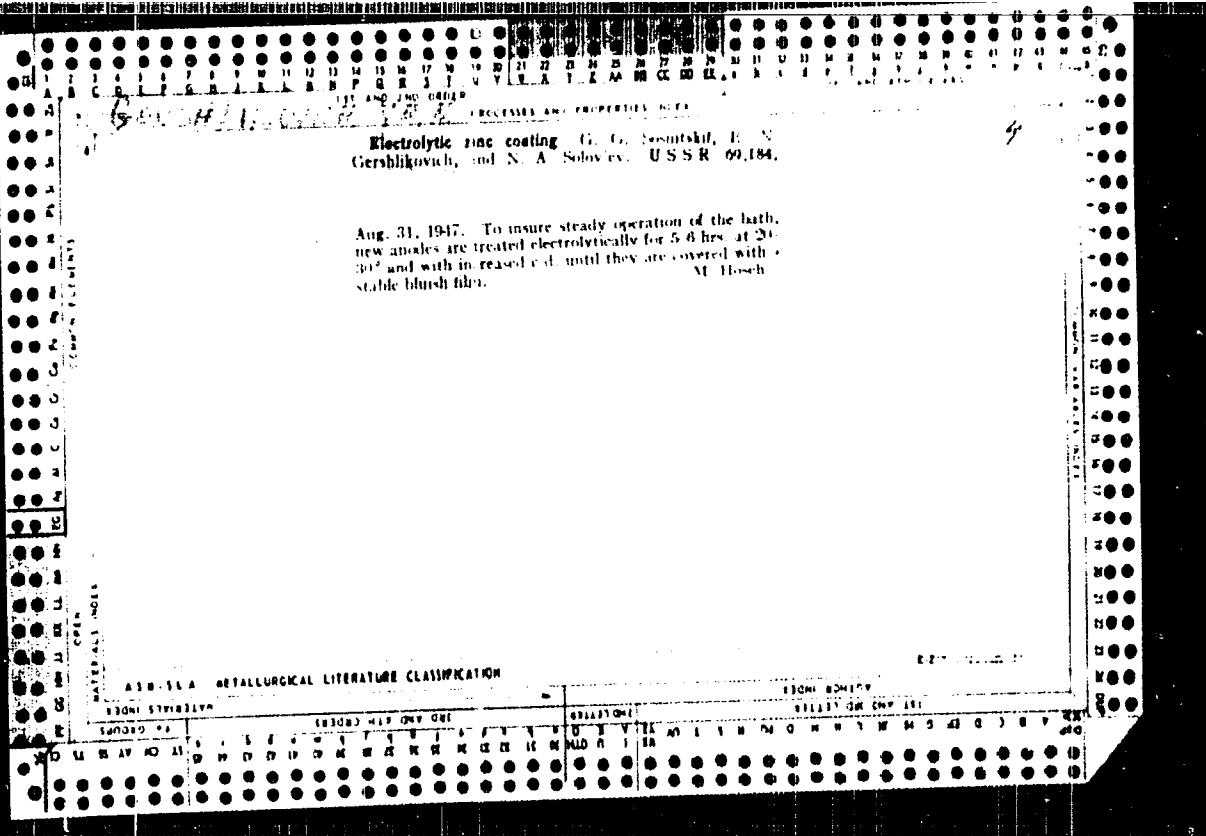
TABLE OF CONTENTS (abridged):

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Ch. IV. Instruments for rheological and physical-mechanical testing of hermetic seals	--68
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SUB CODE: 11,13 / SUBM DATE: 13Mar65 / ORIG REF: 067 / OTH REF: 023

15

Card2/2 dda.



TOMASHEVSKIY, Fedor Feliksovich; GERSHMAN, Anna Grigor'yevna; SHVARTSMAY,
Yevgeniya Moiseyevna; MOKHTEV, A.N., redaktor; MUL'YEROWA, Ye.M.
tekhnicheskiy redaktor

[Production of lead batteries] Proizvodstvo svintsovykh akkumuliatorov. Pod red. A.N. Mokeeva. Moskva, Gos. energ. izd-vo, 1956. 281 p.
(Storage batteries) (MLRA 10:4)

GERSHMAN, A.S., inzh. (Leningrad)

Maintenance of all-welded railroad bridge spans. Put' i put.
khoz. 7 no. 6:33-34 '63. (MIRA 16:7)

(Railroad bridges--Maintenance and repair)

GERSHMAN, A.S.

Examination of the performance of an all-welded span structure
of the bar system. Sber. trud. LIIKH no.229;93-121 '64.
(MIRA 18:8)

Gershman, A.Ye.

12-1-1/26

AUTHOR:

Gershman, A.Ye.

TITLE:

The Hwang Ho River and Primary Measures for Its Regulation
(Reka Khuankhe i pervoocherednyye meropriyatiya po uporyadochneniyu yeye rezhima)

PERIODICAL:

Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva, 1958,
1, pp 1-13 (USSR)

ABSTRACT:

The author refers to projects of a complex utilization of the Hwang Ho River. He describes the physico-geographical conditions of the basin comprising its orography, soil and vegetative cover and submits supplementary and precise information on the river's flow. The author then describes the river itself, presenting data and descriptions of its sections and their hydrological conditions. As a characteristic feature he mentions the frequent catastrophic summer and autumn floods. At present this danger has been considerably reduced by continuous control and safety measure. The dams represent a passive defense against floods and this is a main reason for the Hwang Ho regulation.

A project of utilization submitted to the second session of the All-Chinese Conference was approved in 1955. Primary matters of this project are the erecting of the Sanmyns'ya

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The Hwang Ho River and Primary Measures for Its Regulation

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and Lyutszyasya hydro-centers. The Sanmyn'sya hydro-center comprises a power plant of 1,000,000 kw, a water reservoir of 65 cu km capacity and a dam built on rocky ground. This project includes also agrotechnical, hydromeliorative and other measures.

The Lyutszyasya hydro-center in the Lan'chzhou area will consist of a power plant of 1,000,000 kw and a reservoir of 5 cu km.

These projects are being carried out by the joint efforts of Soviet and Chinese specialists.

The article contains 1 map, 5 tables, 2 photographs and 1 figure. There are 8 Russian references.

AVAILABLE: Library of Congress

Card 2/2

SALTIKOV, Aleksandr Vasil'yevich; GERSHMAN, B.G., red.; ZAZUL'SKAYA,
V.F., tekhn.red.; SPERANSKAYA, A.A., tekhn.red.

[Fundamentals of the present technology of motor vehicle tires]
Osnovy sovremennoi tekhnologii avtomobil'nykh shin. Izd.2.
perer. i dop. Moskva, Gos.nauchno-tekhn.izd-vo khim.lit-ry.
1960. 483 p. (MIHA 13:10)
(Motor vehicles--Tires)

ROGOVIN, Zakhar Aleksandrovich; GERSMAN, B.G., red.

[Fundamentals of the chemistry and production technology
of synthetic fibers] Osnovy khimii i tekhnologii proizvod-
stva khimicheskikh volokon. Izd.3., perer. i dop. Mo-
skva, Khimiia, 1964. 2 p. (MIRA 17:11)

RYAUZOV A.R., GOLODEV V.A., GOREV Y.U., K., SIGHAL M.B.;
GAVDRIN B.C.; red., VIKTORINA N.V.; red.

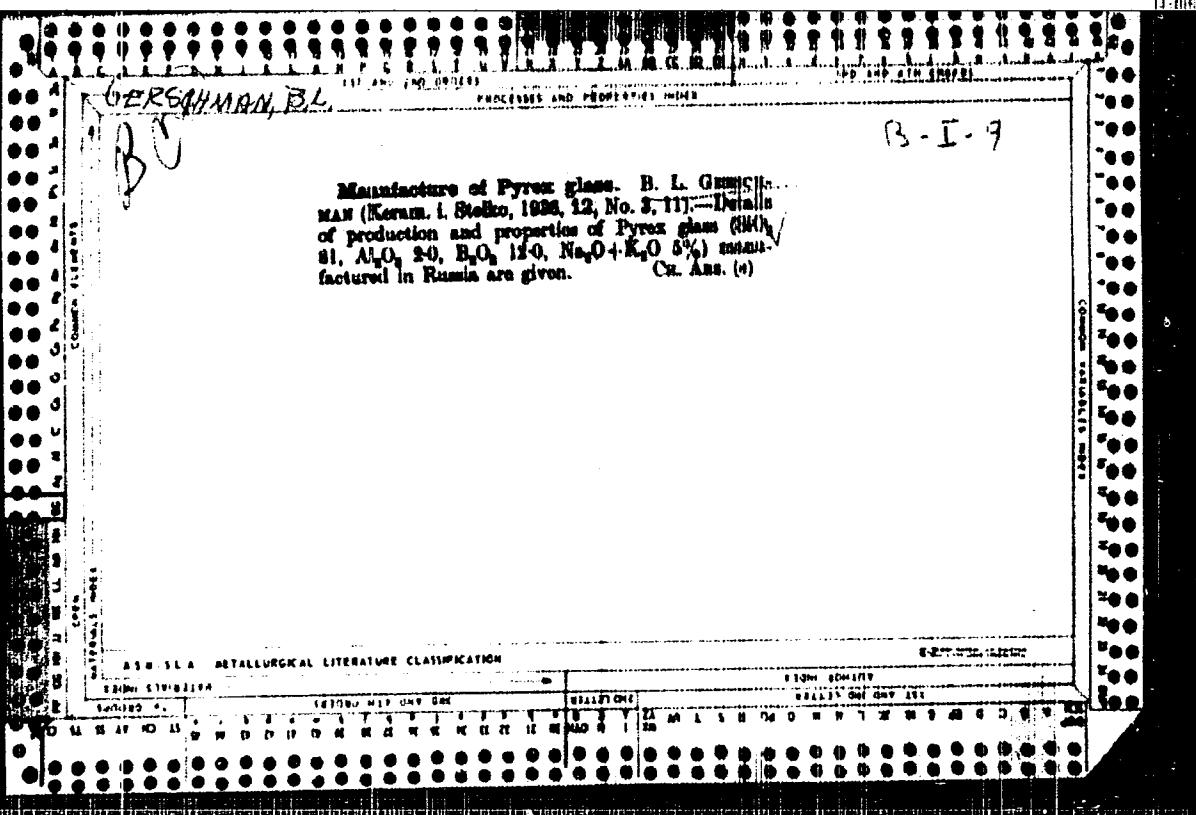
(Tehnologiya i upravlenie v proizvodstve i na montazhe sinteticheskikh volokon) Tekhnologiya proizvodstva i na montazhe sinteticheskikh volokon. Moskva, Khimzavod, 1956, 216 p.

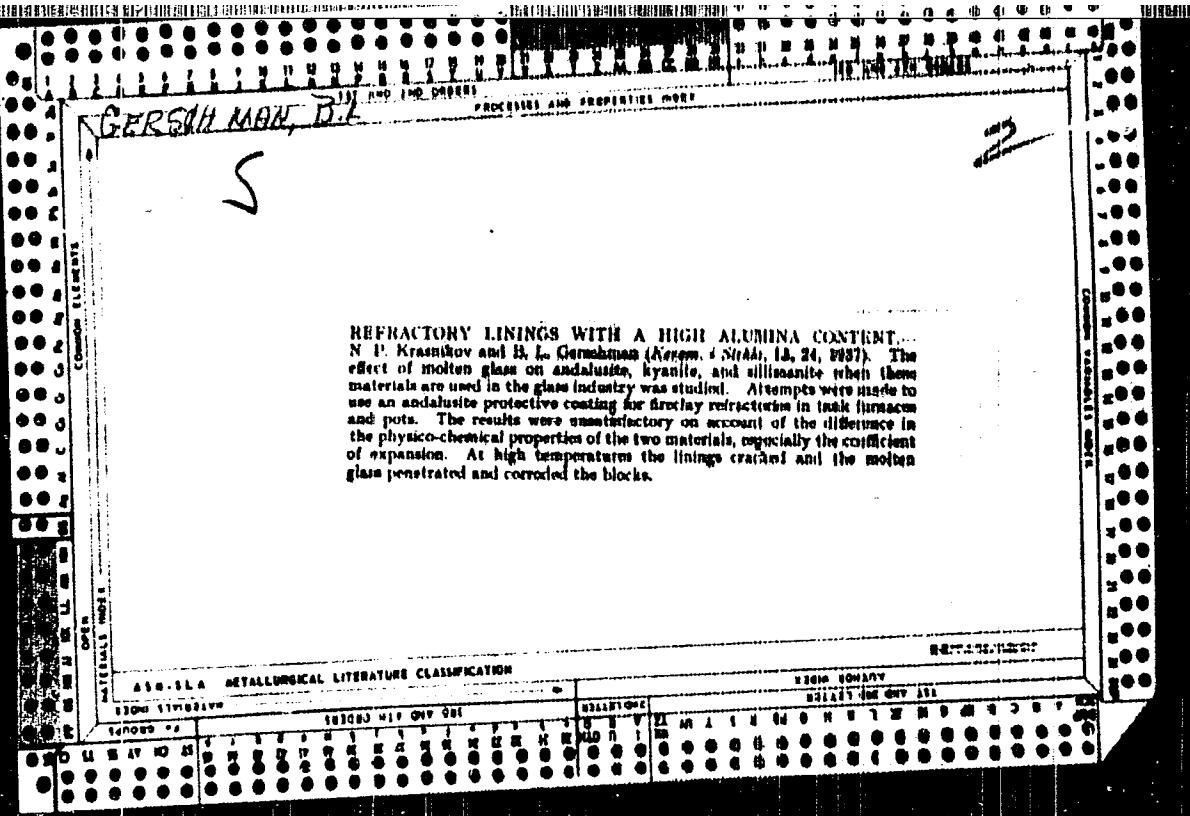
GLITZMANENKO, Dmitriy Lvovich; VEKSER, A.A., red.; GERSEK M., z.G.,
red.

[Production of oxygen] Poluchenie kisloroda. Moskva,
Khimia, 1965. 730 p. (MIRA 18:11)

AKOPYAN, R.A., kand.tekhn.nauk; GERSHMAN, B.I.

Investigating the air-spring suspension of the GM 4517 motorbus
with flexible hose components. Avt.prom. 29 no.10:45-46 O
'63. (MIRA 16:10)





GERSHMAN, B.M.

Use of a plasma substitute solution of polyvinyl in the surgical
clinic. Vest.khir. no.8:83-85 '61. (MIRA 15:3)

1. Iz khirurgicheskoy kliniki (zav. - prof. P.L. Sel'tsovskiy)
Moskovskogo meditsinskogo stomatologicheskogo instituta na baze
khirurgicheskogo otdeleniya gorodskoy klinicheskoy bol'nitsy
No.33 im. prof. Ostromova (gl. vrach - P.V. Abaskina).
(BLOOD PLASMA SUBSTITUTES)

GERSHMAN, B.M. (Moskva, B.Cherkizovskaya, 17, kv.4)

Wounds of the heart and of the pericardium. Grud. knir. 2
no.3:102-103 My-Je '60. (MIRA 15:3)

1. Iz kliniki khirurgicheskikh bolezney (zav. - prof. P.L.
Sel'tsovskiy) Moskovskogo meditsinskogo stomatologicheskogo
instituta na baze khirurgicheskogo otdeleniya Gorodskoy bol'ničay
No.33 imeni A.A. Ostromova (glavnnyy vrach P.V. Abashkina).

(HEART--WOUNDS AND INJURIES)
(PERICARDIUM--WOUNDS AND INJURIES)

GERSHMAN, B.M.

Use of cortisone in the treatment of acute pancreatitis. Khirurgiia
38 no.10:71-74 O '62. (MIRA 15:12)

1. Iz kliniki khirurgicheskikh bolezney (zav. - zasluzhennyj de-
yatel' nauki prof. P.L. Sel'tsovskiy [deceased]) Moskovskogo medi-
tsinskogo stomatologicheskogo instituta na baze khirurgicheskogo
otdeleniya Gorodskoy klinicheskoy bol'nitsy №.33 imeni A.A.
Ostroumova (glavnnyj vrach P.V. Abashkina).
(CORTISONE) (PANCREAS—DISEASES)

BELICHENKO, I.A.; GERSHMAN, B.M.

Anesthesia in surgery for cholecystitis. Eksper. khir. i anest.
8 no.3:92 My-Je '63 (MIRA 17:1)

1. Iz kliniki khirurgicheskikh bolezney Moskovskogo meditsinskogo
stomatologicheskogo instituta (zav. - prof. P.L.Sel'tsovskiy
[deceased]) i khirurgicheskogo otdeleniya Bol'nitsy No.33 imeni
A.A. Ostromova (glavnnyy vrach P.V. Abashkina), Moskva.

• 19. July 1964, Moscow, Russia.

Acute edematous mastopathy following excision of a giant cyst of the adrenal gland and an adrenocorticoid cyst of the breast. Moscow, endocrinology clinic, No. 468-70 JI-Ag '64.
(MERA 13:6)

L. Kuznetsovskaya Gavrilovna (nay., B.M. Gerashan, nauchnyy rukovoditel', prof. I.A. Bragin) Kirovskaya bol'shina No.54 (glavnyy vrach nay. M. Tikhonov), Moscow.

9,9869

S/203/61/001/005/008/028
A006/A101

AUTHORS: Gershman, B.N., Trakhtengerts, V.Yu.

TITLE: On the effect of ions on the nature of propagation of whistler atmospherics

PERIODICAL: Geomagnetizm i aeronomiya, v. 1, no. 5, 1961, 571 - 678

TEXT: Previous studies on the connection between the ion component in the upper atmosphere and peculiarities in the propagation of whistler atmospherics, did not yield final results. The authors analyzed the effect of ion motion on the nature of the trajectory of whistler atmospherics. The direction of group velocity was analyzed on the basis of the variance equation which characterizes the propagation of normal waves in a magnetoactive plasma. The motion of both electrons and ions was taken into account. The results obtained are used to analyze the trajectory of whistler atmospherics. Particular attention is paid to the regularities of passage of the low-frequency component through the upper atmosphere of the Earth. This component was recorded during the reception of atmospherics. The latter phenomenon is connected with the fact, that the presence of protons in the upper atmosphere may be essential for the propagation of radio-

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On the effect of ions ...

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A006/A101

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waves in the range of lowest frequencies. There are 3 figures and 13 references:
4 Soviet-bloc and 9 non-Soviet-bloc.

ASSOCIATION: Gor'kovskiy gosudarstvenny universitet imeni N.I. Lotachevskogo
(Gor'kiy State University imeni N.I. Lobachevskiy) Nauchno-issledo-
vatel'skiy radiofizicheskiy institut (Scientific Research Institute
of Radiophysics)

SUBMITTED: July 20, 1961

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9.9100 (incl. 2205, 2305, 2705, 1046)

S/020/61/157/004/012/051
B104/3206

AUTHOR: Gershman, B. N.

TITLE: Some peculiarities of the transverse propagation of high-frequency waves in a magneto-active plasma

PERIODICAL: Doklady Akademii nauk SSSR, v. 137, no. 4, 1961, 822-825

TEXT: The peculiarities investigated here of the propagation of high-frequency waves in a homogeneous plasma, which is placed in a constant magnetic field, are correlated with the thermal movement of the electrons, and only emerge substantially if the waves propagate perpendicular to H_0 or almost perpendicular to it (transverse propagation). The author confines himself to purely transverse propagation and studies the regular waves (waves 2). Plasma waves and irregular waves are dealt with in less detail. The author bases his study mainly on a paper by E. P. Gross (Phys. Rev., 82, 232 (1951)) and a previous paper by himself (ZhETF, 24, 659 (1953)). From the latter the author takes some formulas, the derivation of which is not given here. First the author investigates the behavior of the waves 2 in nonrelativistic calculation. He states that

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B104/B206

Some peculiarities of the...

in the case of a Maxwell velocity distribution of the electrons, the dispersion equation holds which he obtained in the above-mentioned paper. From this he obtains:

$$\left(\delta = \frac{\omega T \tilde{k}^2}{m \omega_{H,0}^2} = \frac{3 \tilde{n}^2}{u} \right) \quad (1)$$

значение

$$\frac{\delta}{-u} + \frac{\delta^2}{4(1-u)} + \frac{\delta^3}{24(1-u)^2} \quad (2)$$

where $\omega_{H,0}$ is the gyrofrequency of the electrons; $v = 4\pi e^2 N/m^2$, $u = \omega^2/\omega_{H,0}^2$; \tilde{n} and \tilde{k} are the complex refractive index and the complex wave number. Without considering the thermal motion, $i = 0$, whereby $n_2^2 = 1 - v$ follows from (1), from which it results that a propagation is also possible if $v < 1$. In the other case, $n_2^2 < 0$ and a propagation is suppressed. It further follows from (2) that for $v < 1$, a propagation is not possible for all ω . In ranges where $0 \sim \omega_{H,0}$, $2\omega_{H,0}$, $3\omega_{H,0}$, narrow

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Some peculiarities of the...

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B104/B206

zones with the width of $\Delta\omega$ develop, in which $n_2^2 < 0$. Thus the problem of the development of forbidden bands whose relative width decreases with increasing gyroresonance, exists for waves 2 (and also for plasma waves) in the nonrelativistic case. As already shown, a relativistic correction is necessary for the solution of this problem and the author uses for it the nonrelativistic dispersion equation from his above-mentioned paper.

He obtains

$$-\frac{1}{V^{2\pi}} \left(\frac{m_0}{\pi T} \right)^{1/2} v \int_0^{\infty} \int_{-\infty}^{\infty} \left\{ 1 + \frac{\tilde{n}^2 V_p^2}{2uc^2} \left[\frac{1}{1-u(1-V^2/c^2)} \right] + \frac{\tilde{n}^2 V_p^4}{32u^2 c^4} \left[\frac{1}{1-4u(1-V^2/c^2)} \right] + \right. \\ \left. + \frac{\tilde{n}^2 V_p^6}{1152u^3 c^6} \left[\frac{1}{1-9u(1-V^2/c^2)} \right] \right\} \exp \left(-\frac{m_0(V_p^2 + V_z^2)}{2\pi T} \right) V_p V_z dV_p dV_z = \tilde{n}^2 - 1. \quad (3)$$

essentially from his previous paper, without giving a derivation. On the basis of this equation, the behavior of the waves 2 in the range of the fundamental gyroresonance ($\omega \sim \omega_{H_0}$) is investigated. In the integration of this expression, the author changes from the cylindrical coordinates V and V_z to the variables V and θ ($V_p = V \sin \theta$, $V_z = V \cos \theta$). He obtains

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B104/B206

Some peculiarities of the...

$$1-v = \tilde{n}_2^2 \left\{ 1 + \frac{v}{15} \left[3 + \frac{u-1}{\beta^4} + \frac{(u-1)^2}{\beta^4} - \frac{(V_{u-1})^4}{\beta^4} \sqrt{\frac{1}{8}} (Y(z) - Y(-z)) \right] \right\}, \quad (4)$$

$$\text{where } z = c \sqrt{(u-1)m_0/2kT}, \text{ and } Y(z) = \frac{1}{\sqrt{\pi}} \int_{-\infty}^{+\infty} \frac{e^{-x^2}}{z-x} dx. \quad (5)$$

holds for $Y(z)$. (4) holds for $0 < \omega_H, 0 < u < 1$ (6). If (6) holds the integral (5) possesses a singularity on the real axis at $z = x$. If $z > 1$ holds,

$$\tilde{n}_2^2 = \frac{1-v}{1+\beta^4 v/(1-u)}. \quad (7)$$

is obtained for negligibly low absorption. This equation agrees with the nonrelativistic one obtained from (2), if the terms with β^2 and β^3 are neglected. The relativistic correction for $|1-u| \gg \beta^2$ thus appears to be immaterial. For $z \ll 1$ (or $|1-u| \ll \beta^2$), $\tilde{n}_2^2 = (1-v)/(1+v/5)$ is obtained when neglecting the absorption which is not great in itself. From the

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discussion of these dispersion relations the author recognizes that the assertion of the existence of forbidden bands for waves 2 in the fundamental resonance does not apply. The same is found for the frequency ranges $\omega \sim 2\omega_{H_0}$ and $3\omega_{H_0}$. In the range $\omega \sim \omega_{H_0}$, a noticeable absorption appears, which has its greatest value at $|1 - \omega|^{\beta^2}$.

$$\frac{q_1}{n_1} = \frac{x_1}{n_1} \approx \frac{2\sqrt{\pi}\nu}{15} z^{\beta^2} e^{-z^2}. \quad (10)$$

is given for the approximate calculation. Finally, the propagation of the irregular waves (waves 1) and the plasma waves (waves 3), is dealt with. The fundamental frequency for the waves 1 lies at $\omega \sim 2\omega_{H_0}$, for the waves 3 at $\omega \sim 3\omega_{H_0}$. For $\omega \sim \omega_{H_0}$ and $\omega \sim 3\omega_{H_0}$, no noticeable change of the propagation of waves 1 sets in. For waves 3 a propagation in the frequency range $\omega \sim \omega_{H_0}$ is not possible and reaches a limit in the range $\omega \sim 2\omega_{H_0}$. There are 8 references: 5 Soviet-bloc and 3 non-Soviet-bloc.

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Some peculiarities of the...

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B104/B206

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri
Gor'kovskom gosudarstvennom universitete im.
N. I. Lobachevskogo (Scientific Research Institute of
Radiophysics at the Gor'kiy State University imeni
N. I. Lobachevskiy)

PRESENTED: October 7, 1960, by M. A. Leontovich, Academician

SUBMITTED: September 8, 1960

Card 6/6

42144

3.2/60
2/1220

S/203/62/002/004/005/018
I046/I242

AUTHORS: Gershman, R.I. and Trakhtengerts, V.Yu.

TITLE: Dispersion of whistlers as a criterion of concentrations in solar corpuscular streams

PERIODICAL: Geomagnetizm i aeronomiya, v.3, no.4, 1962, 653-658

TEXT: Dispersion of whistlers (whistling atmospherics) in atmospheric regions disturbed by solar corpuscular streams at given latitudes is calculated from

$D(45^\circ)=0.6\sqrt{N_n}$; $D(50^\circ)=0.96\sqrt{N_n}$; $D(60^\circ)=4.1\sqrt{N_n}$; $D(65^\circ)=8.6\sqrt{N_n}$;
where N_n is the unknown electron concentration in the corpuscular streams at the earth's orbit. The D-values calculated for $N \sim 10^4 - 10^5 \text{ cm}^{-3}$ are considerably higher than the experimental dispersion maxima for $\varphi > 50^\circ$. Thus, the electron concentration at the earth's orbit should not exceed several thousand particles per cm^{-3} . All calculations are made without considering the plasma drift, a

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GERSHMAN, B. N.

Doc Phys-Math Sci - (diss) "Theory of propagation of electromagnetic waves in magneto-active plasma." Gor'kiy, 1961.
15 pp; (Academy of Sciences USSR, Physics Inst imeni P. N. Lebedev); 150 copies; price not given; bibliography at end of text (32 entries); (KL, 5-61, sup, 171)

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I046/I242

Dispersion of whistlers...

legitimate approximation for velocities $V \leq 10^9$ cm/sec (the characteristic velocities of the corpuscular streams are $5 \cdot 10^7 - 10^8$ cm/sec).

ASSOCIATION: Radiofizicheskiy institut pri Gor'kovskom gosudarstvennom universitete (Radiophysical Institute at the Gor'kiy State University)

SUBMITTED: March 26, 1962

Card 2/2

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S/141/62/005/001/004/024
E052/E314

AUTHORS: Gershman, B.N. and Ginzburg, V.L.

TITLE: Some remarks on the propagation of electromagnetic waves in an anisotropic dispersive medium

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Radiofizika, v.5, no. 1, 1962, 31 - 46

TEXT: This paper is concerned with the general theory of propagation of waves in an arbitrary anisotropic medium which is uniform in space and constant in time. Spatial dispersion is taken into account. A simple method is used to derive various relations between expressions involving quadratic forms of the wave amplitudes, i.e. expressions involving terms of the form $E_0 \cdot B_0$, $E_0^x \cdot B_0^x$ and so on. Formulae are derived for the derivatives of the components of the real part of the dielectric-constant tensor with respect to the frequency. It is shown that in the absence of spatial dispersion the group-velocity vector always forms an acute angle with the wave vector, and the square of the complex refractive index is always real. In the absence of

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